

The pracjournal class

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Abstract `pracjournal` is a class based on `article.cls`, to be used for typesetting articles in The PracTeX Journal, <http://tug.org/pracjournal>.

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1 INTRODUCTION

The `pracjournal` L^AT_EX document class is to be used for articles written for the The PracTeX Journal, <http://tug.org/pracjournal>. The source for the document class resides at <http://tug.org/pracjournal/dtx>, and is also available at CTAN.

2 USAGE

Refer to the sample document, www.tug.org/pracjournal/dtx/pjsample.tex, for context. Issue a `\documentclass{pracjournal}` command at the beginning of your document as usual. No class options are necessary.

This document class automatically loads the packages `color`, `graphicx`, `hyperref`, `varioref`, and `textcomp`. These are all standard packages in every T_EX distribution.

2.1 Formatting

Page metrics are appropriate for printing on either A4 or letter size paper. The type size is 12/15.5 Palatino. Except in exceptional circumstances, please refrain from using typefaces other than those defined by this class.

Hyperlinks are inserted automatically in the relevant locations in a dark blue colour. If you wish to adjust this colour to suit your own colour requirements,

simply redefine the `linkcolour`. E.g., to change it to dark red,
`\definecolor{linkcolour}{rgb}{0.7,0.2,0.2}`.

2.2 Author/article metadata

All author and article information must be defined before `\maketitle`, which should probably be the first thing after `\begin{document}`.

<code>\author</code>	The <code>\author</code> , <code>\title</code> , and <code>\abstract</code> commands are used to define those
<code>\title</code>	pieces of metadata about the article, and are mandatory. Note that the <code>\abstract</code>
<code>\abstract</code>	is a plain old command, <i>not</i> an environment.
<code>\noabstract</code>	Should you have a reason for not having an abstract, this may be signified by
	declaring <code>\noabstract</code> instead.
<code>\license</code>	It is optional to specify a copyright and/or license declaration, to be typeset
	in the footer of the first page, with the <code>\license</code> command. ¹
<code>\email</code>	Additional author information may be specified, to be typeset appropriately,
<code>\website</code>	with the following commands: <code>\email</code> , <code>\website</code> , and <code>\address</code> .
<code>\address</code>	If the <code>switcheml</code> package is installed somewhere that \TeX will find it, it is
	loaded for the purpose of obfuscating the typeset email address. This is done to
	prevent harvesting by spammers, but if the package cannot be found the email
	address will be typeset as a hyperlink.
<code>\hyperlinkemail</code>	Should you wish to typeset your email address as a hyperlink (that
	is, theoretically harvestable by spammers) despite having <code>switcheml</code> installed,
	you may simply include the command <code>\hyperlinkemail</code> anywhere before
	<code>\begin{document}</code> .

2.2.1 Adding more author/article information

As previously mentioned, this class provides the `\email`, `\website`, and `\address` macros for typesetting that information in the header block. These commands are defined in the source code of the class file with (something like) the following:²

```
\addinfo[\typesetemail]{Email}  
\addinfo[\url]{Website}  
\addinfo{Address}
```

Additional blocks may be added on a per-article basis in the same manner.

<code>\addinfo</code>	To be specific, the <code>\addinfo</code> command takes one mandatory argument, which is the title of the item to be added to the list, and one optional argument, which is used to define the formatting of the block.
-----------------------	---

1. The `\TPJcopyright` command, which used to provide this functionality is still provided for backwards compatibility.
2. `\typesetemail` is an internal command defined by either `\hyperlinkemail` or `\obfuscateemail`.

This command will then define the macro used to input the additional information by taking the lowercase of the title of the information and turning it into a \TeX macro.

`\newinfo` If lowercasing the heading to create the macro name is impractical (due to accents, for example), then this command can be used instead:

```
\newinfo\resume[\color{red}]{R'esum'e}
```

The names used in the article metadata ('Email', 'Résumé', etc.) can be redefined as follows:

```
\renewcommand\emailname{Email}
\renewcommand\resumename{Resume}
```

These macros are defined automatically by `\addinfo/\newinfo`.

`\addinfospace` If you wish to add some vertical space after the previous item in the front matter, the `\addinfospace{<height>}` command will insert some. This may be necessary after multi-line blocks, which require some breathing room.

`\clearinfo` If you don't like the ordering of the information blocks or you wish to edit the formatting of the current setup, the `\clearinfo` command allows you to start fresh and redefine the info blocks however you may wish.

2.3 Additional user commands

`\dash` For 'smart' dashes in text. Thinly spaced from the text, it ignores surrounding spaces, and permits only succeeding line breaks.

```
use like this \dash for consistent dashes
```

produces 'use like this — for consistent dashes'.

`\note` For easier footnotes. This command ignores preceding space, so linebreaks before the footnote text in the source will not give the wrong spacing.

```
And here's an example.
\note{Albeit a trivial one.}
And continuing
```

produces 'And here's an example.³ And continuing'.

`itemise` For non-US writers, it is probably more natural to use `\begin{itemise}` over what \LaTeX provides by default.

`\ctanfile` `\ctanloc` These commands are used to refer to online locations and documentation within the Comprehensive \TeX Archive Network. Usage is as follows:

```
\ctanfile{macros/latex/contrib/titlesec/titlesec.pdf}
\ctanloc{macros/latex/contrib/titlesec/}
```

It will print the input prefixed with 'CTAN:' and provide a hyperlink to the location.

3. Albeit a trivial one.

2.4 TPJ internal commands

Two commands are to be used at the direction of the PracTeX production team: `\TPJrevision` and `\TPJissue`. These commands typeset information in the header of the first page relating to the revision number (or date) of the article and the issue number of the journal.

This document class creates a file `_rev.tex` in the current directory (if a `\TPJrevision` statement is present) and reads a file `_iss.tex`, if present. Please keep a separate directory for each article you develop for TPJ.

2.5 Logos

The following logos and abbreviations are defined for your convenience:

<code>\TeX:</code>	<code>\TeX</code>	<code>\pdfTeX:</code>	<code>pdfTeX</code>
<code>\LaTeX:</code>	<code>\LaTeX</code>	<code>\pdfLaTeX:</code>	<code>pdfLaTeX</code>
<code>\LaTeXe:</code>	<code>\LaTeX_{2ϵ}</code>	<code>\XeTeX:</code>	<code>X_YTeX</code>
<code>\BibTeX:</code>	<code>BibTeX</code>	<code>\ExTeX:</code>	<code>ϵTeX</code>
<code>\MF:</code>	<code>METAFONT</code>	<code>\PracTeX:</code>	<code>PracTeX</code>
<code>\MP:</code>	<code>METAPOST</code>	<code>\TPJ:</code>	The PracTeX Journal
<code>\ConTeXt:</code>	<code>ConTeXt</code>	<code>\PS:</code>	PostScript

3 HISTORY

The first revision of this class was written by Karl Berry. KB: Gratefully based on the `dtxtut` skeleton.

Revised by Arthur Ogawa, 2004/01/03, to include new features, per Lance Carnes, as follows:

1. Define an `\articleID` macro which typesets the article identification in a block somewhere on the first page of the article, and which can be used to identify the article/revision date for reader comments. E.g. if this appears in the article source file:

```
\author{A.U. Thor}
\title{Pracjourn Sample}
\TPJissue{2005}{1}
\TPJrevision{2005}{2}{12}%
\TPJcopyright{\textcopyright\ 2005 TeX Users Group}
```

it will become a block of text typeset on the first page of the article. See e.g. [this example PDF](#).

2. Write the information from the argument of the `\articleID` macro into a file called `_id.tex`. Put this file in the same directory as the source file, and overwrite any previous files of the same name.
3. Define a `\TPJcopyright` macro which will print a copyright notice at the bottom of the first page. E.g. `\TPJcopyright{2005 TeX Users Group}` will produce “©2005 TeX Users Group” in the page footer of the title page.
4. The page measures should work with both Letter and A4 paper sizes.

Revised again by Will Robertson, mid-2005, to implement some extra things. This snow-balled into the current version, a description of which here would be redundant.

4 IMPLEMENTATION

The is fairly poorly documented, and the class has undergone a multitude of small changes over the TPJ issues 2005-4, 2006-1. It should now be fairly stable, and over time it's conceivable (but unlikely) that the descriptions herein will be improved.

4.1 Base class and options

Use L^AT_EX's article class, but at a bigger default type size.

KB: 12pt seems a little too big, 11pt seems a little too small. Implementing 11.5pt is not obvious.

If the document instance calls for options that conflict with the following choices, then the document wins. However our default option list is not the same as those of article.cls.

```
1 \let\ExecuteOptions@ltx\ExecuteOptions
2 \def\ExecuteOptions#1{%
3 \ExecuteOptions@ltx{letterpaper,12pt,oneside,onecolumn,final}%
4 }%
5 \LoadClassWithOptions{article}
6 \let\ExecuteOptions\ExecuteOptions@ltx
```

4.2 Metrics

Default leading (from classes.dtx) for 11pt is 13.6pt leading, for 12pt is 14.5pt. We want more—this factor gives us 12pt type on 15.5pt leading.

```
7 \linespread{1.069}
```

Change the text width to something that works for both A4 and Letter paper, as well as possible.

xx The vertical dimensions need to be changed as well, perhaps for a 9in text height, taking account of the headline and footline.

```
8 \setlength\textwidth{432pt}
9 \setlength\oddsidemargin{18pt}% xx depend on letter/a4
10 \setlength\evensidemargin{18pt}
```

4.3 Package loading

Palatino, including math (sc option for true small caps, not in TL 2003). Try for mathpazo; if not available use palatino.

Enable pdf_TE_X's margin kerning, if available, but *not* font expansion, which increases the size and complexity of the resultant PDF. This side-effect may be deemed negligible in the future.

The textcomp package is loaded in order to provide a nice looking copyright logo, amongst other things.

```

11 \IfFileExists{lmodern.sty}{%
12   \RequirePackage{lmodern}
13   \usepackage[T1]{fontenc}}{}
14 \IfFileExists{mathpazo.sty}
15     {\RequirePackage[sc]{mathpazo}}
16     {\renewcommand\rmdefault{ppl}}
17 \IfFileExists{microtype.sty}{%
18   \RequirePackage[protrusion=true,expansion=false]{microtype}}{}
19 \RequirePackage{textcomp}

```

hyperref is used for creating live hyperlinks, as well as providing \url for typesetting URLs easily. All hyperlinks are coloured in a dark shade of blue.

```

20 \RequirePackage{color,graphicx,varioref,hyperref}
21 \definecolor{linkcolour}{rgb}{0,0.2,0.6}
22 \hypersetup{colorlinks,breaklinks,
23   linkcolor=linkcolour,citecolor=linkcolour,
24   filecolor=linkcolour,urlcolor=linkcolour}

```

TODO: update this to use the successor to the switcheml package

If the switcheml package is installed in the author’s system, use it to obfuscate their email address by default. Otherwise, just use a hyperlink. The commands to do this are defined in a later section.

An author may specify \hyperlinkemail explicitly should they not care to obfuscate their email address even with the switcheml package installed.

```

25 \IfFileExists{switcheml.sty}
26     {\RequirePackage{switcheml}
27       \AtBeginDocument{\@ifx@undefined{\typesetemail}{\obfuscateemail}}{}}
28     {\AtBeginDocument{\@ifx@undefined{\typesetemail}{\hyperlinkemail}}{}}

```

4.4 Amendments from article

`\maketitle` Printing the date of the last \TeX run in the title block does not seem warranted—if someone reprocesses the document with no changes, we wouldn’t want the date to change.

xx use rcs.sty or something?
xx include bibtex id?

```

29 \renewcommand\maketitle{\par
30   \iftpj@noabstract\else
31     \@ifx@undefined{\tpj@info@string\abstract}
32     {\ClassError{pracjourn}
33       {Please specify an \string\abstract\space before \string\maketitle}
34       {It is a PracTeX Journal requirement to include an abstract. \MessageBreak
35         \MessageBreak
36         If you have exceptional reasons for not having one in this \MessageBreak
37         article, write \string\noabstract\space somewhere before \string\maketitle.}}{}
38   \fi
39   \begingroup

```

```

40 \renewcommand\thefootnote{\@fnsymbol\c@footnote}%
41 \def\@makefnmark{\rlap{\@textsuperscript{\normalfont\@thefnmark}}}%
42 \long\def\@makefntext##1{\parindent 1em\noindent
43     \hb@xt@1.8em{%
44         \hss\@textsuperscript{\normalfont\@thefnmark}}##1}%
45 \newpage
46 \global\@topnum\z@ % Prevents figures from going at top of page.
47 \@maketitle
48 \thispagestyle{titlepage}\@thanks
49 \endgroup
50 \setcounter{footnote}{0}%
51 \global\let\thanks\relax
52 \global\let\maketitle\relax
53 \global\let\@maketitle\relax
54 \global\let\title\relax
55 \global\let\author\relax
56 \global\let\date\relax
57 \global\let\and\relax
58 }%

```

`\@maketitle`

```

59 \def\@maketitle{%
60 \newpage
61 \null
62 \write@ID@aux\read@issue
63 \begin{flushleft}
64     \let\footnote\thanks
65     \begingroup\LARGE \@title \par\endgroup
66     \vspace{2ex}%
67     \begingroup\large \@author \par\endgroup
68 \end{flushleft}

```

This is where the extra author information is typeset. As various pieces of information are defined, they fill up the `\tpj@optional@author@info` macro, which is subsequently used here as per the definition of the author.

```

69 \tpj@optional@author@info
70 \iftpj@noabstract\else
71     \vspace{2ex}%
72     \tpj@info@container{\abstractname}{\abstract}
73 \fi}

```

4.4.1 Formatting changes

```

\section Remove bold from the all the section headings, just for something a little differ-
\subsection ent. This is verbatim from article.cls with a bunch of \bfseries's omitted.
\subsubsection
\paragraph 74 \renewcommand\section{\@startsection {section}{1}{\z@}%
\subparagraph

```

TODO: just use titlesec instead


```

75             {-3.5ex \@plus -1ex \@minus -.2ex}%
76             {2.3ex \@plus .2ex}%
77             {\normalfont\Large\raggedright}}
78 \renewcommand\subsection{\@startsection{subsection}{2}{\z@}%
79             {-3.25ex\@plus -1ex \@minus -.2ex}%
80             {1.5ex \@plus .2ex}%
81             {\normalfont\large\raggedright}}
82 \renewcommand\subsubsection{\@startsection{subsubsection}{3}{\z@}%
83             {-3.25ex\@plus -1ex \@minus -.2ex}%
84             {1.5ex \@plus .2ex}%
85             {\normalfont\normalsize\raggedright}}
86 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
87             {3.25ex \@plus 1ex \@minus .2ex}%
88             {-1em}%
89             {\normalfont\normalsize\itshape}}
90 \renewcommand\subparagraph{\@startsection{subparagraph}{5}{\parindent}%
91             {3.25ex \@plus 1ex \@minus .2ex}%
92             {-1em}%
93             {\normalfont\normalsize\itshape}}

```

Lists

TODO: just use `enumitem` instead

`itemize` Decrease the amount of vertical space between items in the list environments. To do this, save the old environment macros under new names, and then change the `enumerate` ‘real’ environments to call the originals plus some space-adjusting parameters.

Note that description lists shouldn’t contain more than one paragraph.

```

94 \let\tpj@itemize\itemize
95 \let\tpj@enditemize\enditemize
96 \let\tpj@enum\enumerate
97 \let\tpj@endenum\endenumerate
98 \let\tpj@desc\description
99 \let\tpj@enddesc\enddescription
100 \renewenvironment{itemize}
101   {\tpj@itemize\parskip0pt}{\tpj@enditemize}
102 \renewenvironment{enumerate}
103   {\tpj@enum\parskip0pt}{\tpj@endenum}
104 \renewenvironment{description}
105   {\tpj@desc\parskip0pt\parindent1.8em}{\tpj@enddesc}

```

`itemise` Provide an environment with the correct spelling of ‘itemize’.

```

106 \let\itemise\itemize
107 \let\enditemise\enditemize

```

`\labelitemi(...)` Get rid of the nasty blob that is the `\textbullet`, and replace it with more unobtrusive dashes.

```

108 \renewcommand\labelitemi{\normalfont\bfseries\textendash}
109 \renewcommand\labelitemii{\normalfont\bfseries\textperiodcentered}

```

`\descriptionlabel` Change the description label to italics instead of bold.

```

110 \renewcommand*\descriptionlabel[1]{\hspace\labelsep
111 \normalfont\itshape #1}

```

Footnotes Here we change the footnote formatting a little bit from the default.

`\@makefn` Make the footnote number at the bottom of the page not a superscript (recommended by Bringhurst, if you're curious—the superscript is there originally to get the number out of the way, but that's no longer needed when you're labelling the note with the number).

```

112 \def\@makefn#1{%
113 \parindent 0em\relax
114 \makebox[1.5em][l]{\normalfont\footnotesize\@thefnmark.#1}

```

4.5 TPJ additions

4.5.1 Boolean logic

`\@ifx@empty` The following three procedures implement part of the boolean logic facility, an expansion-only calculating engine.

```

\@ifx@empty
\@ifx@undefined
\@ifeof
115 \def\@ifx@empty#1{% Implicit #2#3
116 \ifx#1@empty
117 \expandafter\@firstoftwo
118 \else
119 \expandafter\@secondoftwo
120 \fi}%
121 \def\@ifx@undefined#1{% Implicit #2#3
122 \ifx#1@undefined
123 \expandafter\@firstoftwo
124 \else
125 \expandafter\@secondoftwo
126 \fi}%
127 \def\@ifeof#1{% Implicit #2#3
128 \ifeof#1
129 \expandafter\@firstoftwo
130 \else
131 \expandafter\@secondoftwo
132 \fi}%
133 \def\boolean@true#1{\let#1\@firstoftwo}%
134 \def\boolean@false#1{\let#1\@secondoftwo}%

```

4.5.2 Titlepage pagestyle

`\ps@titlepage` The `\ps@titlepage` procedure effects a page style called `titlepage`, which applies only to the title page. The `\titlepage@head` procedure sets type in the page header, `\titlepage@foot` in the page footer.

```
135 \def\ps@titlepage{%
136   \def\@oddhead{\titlepage@head\hfil}%
137   \let\@evenhead\@oddhead
138   \def\@oddfoot{\hfil\titlepage@foot}%
139   \let\@evenfoot\@oddfoot}%
```

`\titlepage@head` This is the text block before the article title. Changes depending on the production stage.

```
140 \def\titlepage@head{\footnotesize
141   \parbox{\linewidth}{%
142     \@ifx@empty\@TPJissue{For submission to \TPJ}{\@TPJissue}\par
143     \@ifx@empty\@TPJissue
144       {\@ifx@empty\@TPJrevision{Draft of \today}{Article revision \@TPJrevision}}%
145       {\@ifx@empty\@TPJrevision
146         {\ClassError{pracjourn}
147           {\string\TPJrevision\space must be defined if
148             \string\TPJissue\space is also}
149           {It is a requirement for PracTeX Journal articles to contain\MessageBreak
150             revision information for version tracking. Please input this\MessageBreak
151             information, or omit \protect\TPJissue.}}
152           {Article revision \@TPJrevision}}}}%
```

`\titlepage@foot` To typeset the optional copyright declaration by the author.

```
153 \def\titlepage@foot{%
154   \vtop{\raggedleft\footnotesize\@TPJcopyright}}%

155 % Better float parameters: (from the TeX FAQ)
156 \renewcommand{\topfraction}{.85}
157 \renewcommand{\bottomfraction}{.7}
158 \renewcommand{\textfraction}{.15}
159 \renewcommand{\floatpagefraction}{.66}
160 \renewcommand{\dbltopfraction}{.66}
161 \renewcommand{\dblfloatpagefraction}{.66}
162 \setcounter{topnumber}{9}
163 \setcounter{bottomnumber}{9}
164 \setcounter{totalnumber}{20}
165 \setcounter{dbltopnumber}{9}
```

4.5.3 Additional author/article information

`\addinfo` This command defines a new block of information to be typeset in the title block of the document. For every new item, a new `\tpj@info@container` is appended

to `\tpj@optional@author@info`, which is called in `\@maketitle`.

```
166 \newcommand\addinfo[2] [] {%
167   \def\@tempa{\new@addinfo{#1}{#2}}%
168   \lowercase{\expandafter\@tempa\expandafter{\csname#2\endcsname}}%
169 \newcommand\new@addinfo[3] {%
170   \tpj@define@info@block{#3}%
171   \expandafter\newcommand
172     \csname\expandafter\@gobble\string#3name\endcsname{#2}%
173   \g@addto@macro\tpj@optional@author@info{%
174     \tpj@info@container[1]{\csname\expandafter\@gobble\string#3name\endcsname}{#3}}
```

`\newinfo` E.g., `\newinfo\resume[\resfont]{R'esum'e}`

```
175 \newcommand\newinfo[1] {%
176   \@ifnextchar[{\@newinfo{#1}}{\@newinfo{#1} []}%
177 \def\@newinfo#1[#2]#3{%
178   \tpj@define@info@block{#1}%
179   \expandafter\newcommand
180     \csname\expandafter\@gobble\string#1name\endcsname{#3}%
181   \g@addto@macro\tpj@optional@author@info{%
182     \tpj@info@container[2]{%
183       \csname\expandafter\@gobble\string#1name\endcsname}{#1}}
```

`\addinfospace` Adds some space after the previous item in the frontmatter.

```
184 \newcommand\addinfospace[1]{\g@addto@macro\tpj@optional@author@info{\vspace{#1}}}
```

`\tpj@define@info@block` This macro actually does the work of `\addinfo`. It takes the name of a piece of info to be typeset in the title block of the article.

This is much easier (but uglier, in hindsight : () than `\begin{abstract}... \end{abstract}` contortions (cf. `ltugboat.cls`).

```
185 \newcommand\tpj@define@info@block[1] {%
186   \newcommand#1[1]{\expandafter\def\csname \tpj@info@\string#1\endcsname{##1}}
```

`\clearinfo` If the `\tpj@optional@author@info` macro needs to be cleared for some reason,⁴ the `\clearinfo` command will come quite in handy. This command is also used to initialise the macro in question.

```
187 \newcommand\clearinfo{\let\tpj@optional@author@info\@empty}
188 \clearinfo
```

Optional fields These are the default information blocks. `\typesetemail` is defined by one of either `\hyperlinkemail` or `\obfuscateemail`.

```
189 \addinfo[\typesetemail]{Email}
190 \addinfo[\url]{Website}
191 \addinfo[\linespread{0.9}\selectfont]{Address}
```

4. The only reason I can think of to do this is to re-arrange the order of the items in the title block of the article.

Abstract We bypass `\addinfo` so that the abstract info block is not added to the `\tpj@optional@author@info` macro.

The abstract block itself is called directly in `\@maketitle`.

```
192 \let\abstract\relax
193 \tpj@define@info@block\abstract
194 \def\abstractname{Abstract}
```

`\noabstract` However, the abstract may indeed be suppressed if that is the author's wish.

```
195 \newif\iftpj@noabstract
196 \newcommand\noabstract{\tpj@noabstracttrue}
```

`\endabstract` If an abstract environment is used, give an error. Maybe I should just support the environment, instead.

```
197 \def\endabstract{%
198   \ClassError{pracjourn}
199   {Please input the abstract with \string\abstract{...}, before \string\begin{document}}
200   {Instead of the \string\begin{abstract}...\string\end{abstract} \MessageBreak
201     environment, use \string\abstract{...}. Paragraphs are allowed!\MessageBreak
202                                           \MessageBreak
203     Because the abstract is typeset with the title block, \MessageBreak
204     it must be input before the \string\begin{document}\space command.}}
```

`\TPJissue` The three user-level commands `\TPJissue`, `\TPJrevision`, and `\TPJcopyright`
`\TPJrevision` specify the issue, the revision, and the copyright information of the document.
`\TPJcopyright` Since these commands are like `\author` and `\title`, one might wish to disable them upon executing the `\titlepage` procedure. But we do not.

If the document has a `\TPJrevision` statement, the title page header contains words to that effect, otherwise it bears the current date.

If the document lacks a `\TPJcopyright` statement, the title page footer contains nothing.

```
205 \newcommand{\TPJissue}[2]{\gdef\@TPJissue{\TPJ, #1, No.\, #2}}%
206 \newcommand{\TPJrevision}[3]{\gdef\@TPJrevision{#1/#2/#3}}%
207 \newcommand{\TPJcopyright}[1]{\gdef\@TPJcopyright{#1}}%
208 \let\@TPJissue\@empty
209 \let\@TPJrevision\@empty
210 \let\@TPJcopyright\@empty
```

`\license` For consistency with the other user commands of this class, `\license` is defined as an alias of `\TPJcopyright`.

```
211 \let\license\TPJcopyright
```

`\tpj@info@container` This is the macro that typesets the optional author info for fields defined as above. It splits it all up in minipages, in a smaller font and with more compressed leading than the main document text.⁵ It takes the name of the info as a

5. L^AT_EX's `\hangfrom` (or whatever it is) could well have been much easier.

mandatory argument, which is used to typeset the info label as well as retrieve the actual data from the `\tpj@info@#3` macro (see `\addinfo`).

An optional argument is used as a hook to typeset the info data in the equivalent form `#1{#2}`.

For example, to typeset the info defined by the author in the `\abstract` (recall, this is set up due to a corresponding `\addinfo{Abstract}{\abstract}`—see above), input `\tpj@info@container{Abstract}`. To typeset it, say, in italics, it would be possible to write `\tpj@info@container[\textit]{Abstract}`.

```
212 \newcommand\tpj@info@container[3] [] {%
```

After `\maketitle`, redefine the info command to return an error.

```
213 \gdef#3{\ClassError{pracjourn}{#2 must be defined BEFORE \string\maketitle}{}}
```

Now, we typeset the info block, but only if the info has actually been specified by the author.

```
214 \expandafter\ifx\csname tpj@info@\string#3\endcsname\relax\else
215 \noindent\small
```

On the left, right-aligned sans serif item label, e.g., ‘Abstract’:

```
216 \begin{minipage}[t]{0.15\textwidth}
217 \noindent\hfill\sffamily#2
218 \end{minipage}\hfill
```

On the right, the content, defined by, e.g., `\abstract`:

```
219 \begin{minipage}[t]{0.825\textwidth}
220 \linespread{1.0}\selectfont
221 \setlength\parindent{1.5em}%
222 \noindent\ignorespaces
223 \expandafter#1\expandafter{\csname tpj@info@\string#3\endcsname}
224 \end{minipage}\par
225 \fi}
```

4.5.4 Email & hyperlink macros

- `\typesetemail` We define the macro `\typesetemail` to be used for self-explanatory purposes. The class contains methods to define it in one of two ways.
- `\hyperlinkemail` The `\hyperlinkemail` command defines `\typesetemail` to use the `hyperref` package’s facilities to create a hyperlink email address in the output document.
- `\obfuscateemail` The `\obfuscateemail` command defines `\typesetemail` to use the `switcheml` package’s facilities to create a machine-obfuscated email address in the output document.⁶

6. The `switcheml` package defines, among a couple of other things, a macro for typesetting email addresses that obfuscates their representation in the PDF file, ensuring protection against harvesting email addresses from web-public PDF documents.

```

226 \newcommand\obfuscateemail{%
227   \def\typesetemail##1{\ttfamily\switchemail{##1}}
228 \newcommand\hyperlinkemail{%
229   \def\typesetemail##1{\ttfamily\tpj@compose@mailto{##1}{Re: PracTeX Journal article}{##1}}

```

`\tpj@compose@mailto` This macro takes three arguments to typeset a mailto email hyperlink. The #1 takes the email address, #2 takes the default subject of the email, and #3 is the text to appear in the output as the hyperlink.

All spaces in the hyperlink source are converted to %20 to accommodate Mac OS X's PDF reader; this isn't necessary for Adobe Reader. Oh well.

```

230 \newcommand\tpj@compose@mailto[3]{%
231   \edef\@tempa{mailto:#1?subject=#2 }%
232   \edef\@tempb{\expandafter\html@spaces\@tempa\@empty}%
233   \href{\@tempb}{#3}}

```

`\html@spaces` This macro takes a string and (hopefully) converts all spaces (or is it all white-space?) to '%20', creating a string that can be used for encoding the subject of the email comments hyperlink in `\titlepage@head`. Using `\catcode`, we remove the comment ability of the % character, making it a normal letter. (This code was heavily influenced by the L^AT_EX kernel's `\zap@space` command.)

```

234 \catcode'\%=11
235 \def\html@spaces#1 #2{#1%20\ifx#2\@empty\else\expandafter\html@spaces\fi#2}
236 \catcode'\%=14

```

4.5.5 User commands

`\note` Fairly straightforward.

```

\dash 237 \newcommand\note[1]{\unskip\footnote{#1}}
\ctanfile 238 \DeclareRobustCommand\dash{%
\ctanloc 239   \unskip\nobreak\thinspace\textemdash\thinspace\ignorespaces}
240 \pdfstringdefDisableCommands{\renewcommand{\dash}{ - }}
241 \newcommand\ctanfile[1]{%
242   \href{http://www.ctan.org/get?fn=#1}
243     {\path{CTAN:#1}}
244 \newcommand\ctanloc[1]{%
245   \href{http://www.ctan.org/tex-archive/#1}
246     {\path{CTAN:#1}}

```

4.5.6 Logos

`\tpf@deflogo` Wrapper for both `\DeclareRobustCommand` and `\pdfstringdefDisableCommand`.

```

247 \newcommand\tpj@deflogo{\@dblarg\tpj@deflogo}
248 \newcommand\tpj@deflogo[3][\@nil]{%
249   \expandafter\DeclareRobustCommand\csname#2\endcsname{#3}%
250   \pdfstringdefDisableCommands{%
251     \expandafter\def\csname#2\endcsname{#1}}

```

The texnames and mflogo packages have been incorporated into the class in order to remove the dependence on external packages and to tune the logos for Palatino. First, here are the relevant parts⁷ of texnames.sty, v1.10, tuned for Palatino and adapted to use \textsc where appropriate:

```
252 \tpj@deflogo{TeX}{T\kern-.15em\lower.5ex\hbox{E}\kern-.07em X\spacefactor1000\relax}
253 \tpj@deflogo{LaTeX}{L\kern-.32em\raise.37ex\hbox{\scalebox{0.76}{A}}\kern-.15em\TeX}
254 \tpj@deflogo{LaTeXe}{\LaTeX2$_{\textstyle\varepsilon}$}
255 \tpj@deflogo{BibTeX}{B{\textsc i\kern-.025em\textsc b}\kern-.08em\TeX}
```

And now mflogo.sty, unchanged in its entirety:

```
256 \DeclareRobustCommand\logofamily{%
257   \not@math@alphabet\logofamily\relax
258   \fontencoding{U}\fontfamily{logo}\selectfont}
259 \DeclareTextFontCommand{\textlogo}{\logofamily}
260 \tpj@deflogo[MetaFont]{MF}{\textlogo{META}\@dischyph\textlogo{FONT}\@}
261 \tpj@deflogo[MetaPost]{MP}{\textlogo{META}\@dischyph\textlogo{POST}\@}
```

Now some new definitions. Despite the fact that it makes no difference with the main font used for this class, I define \pdfTeX with some italic correction to set a good precedent. Compare Computer Modern with and without: pdf_TE_X vs. pdf_TE_X; I find the former more attractive because the ascender of the ‘f’ doesn’t collide.

```
262 \tpj@deflogo{ConTeXt}{C\kern-.03em on\-\kern-.10em\TeX\kern-.04em t}%
263 \tpj@deflogo{pdfTeX}{pdf\/\TeX}
264 \tpj@deflogo{pdfLaTeX}{pdf\/\LaTeX}
265 \newcommand\PS{PostScript}
266 \tpj@deflogo{PracTeX}{Prac\kern-.07em\TeX}
267 \newcommand\TPJ{The \PracTeX\ Journal}
268 \tpj@deflogo{XeTeX}{%
269   X\lower.5ex\hbox{\kern-.07em\reflectbox{E}}}%
270   \kern-.15em\TeX}
271 \tpj@deflogo{ExTeX}{\textrm{\relax
272   \ensuremath{\textstyle\varepsilon}_{\kern-.15em\mathcal{X}}}\relax
273   \kern-.15em\TeX}}
```

4.5.7 Version tracking

`\write@ID@aux` Establish an auxiliary file, `_id.tex`, for TPJ tracking information.

```
274 \def\write@ID@aux{%
275   \@ifx@empty\@TPJrevision{}-%
276   \begingroup
277   \let\thanks@gobble
278   \immediate\openout\ID@aux _rev.tex
279 % \immediate\write\ID@aux{\@percentchar\space
280 %   This file generated by the pracjournal document class}%
```

7. No-one still refers to AMSTeX and SLITeX and so on, right?


```

281 \immediate\write\ID@aux{\@TPJrevision}%
282 \immediate\closeout\ID@aux
283 \endgroup
284 }%
285 }%
286 \newwrite\ID@aux

```

`\read@iss@aux`

```

287 \def\read@issue{%
288 \openin\@inputcheck _iss.tex
289 \@ifeof\@inputcheck{}
290 {\ifx\@TPJissue\@empty\else
291 \typeout{-----^^J
292 \prajourn: \protect\TPJissue\space info overwritten due to _iss.tex file^^J
293 -----}
294 \fi
295 \read\@inputcheck to\@TPJissue
296 \closein\@inputcheck
297 \expandafter\parse@iss\@TPJissue\@nil}}

```

`\parse@iss`

```

298 \def\parse@iss TPJ #1 No #2, #3-#4-#5\@nil{%
299 \@tempcnta#2\relax
300 \protected@xdef\@TPJissue{\TPJ, #1, No.\, \the\@tempcnta}}

```

4.5.8 Miscellaneous

`\set@pdfpage` The PDF_TE_X parameters `\pdfpagewidth` and `\pdfpageheight` determine the CropBox/BleedBox/TrimBox/ArtBox. The procedure `\setpdfpage` sets them to the values of the L^AT_EX `\paperwidth` and `\paperheight`. If PDF_TE_X is not the engine, nothing is done.

We arrange for the procedure to be executed at Begin Document time.

```

301 \def\set@pdfpage{%
302 \@ifx@undefined\pdfoutput{}{%
303 \pdfpagewidth =\paperwidth
304 \pdfpageheight=\paperheight
305 \relax}}
306 \AtBeginDocument{\set@pdfpage}

```